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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,612	07/25/2003	Shushi Ikeda	240733US0	9365

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EXAMINER

YEE, DEBORAH

ART UNIT PAPER NUMBER

1742

DATE MAILED: 08/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/626,612

Applicant(s)

IKEDA ET AL.

Examiner

Deborah Yee

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 May 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 6-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7-05-05 and 3-22-05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## **DETAILED ACTION**

### ***Election/Restrictions***

1. Newly submitted claims 6 to 8 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claims 6 to 8 are directed to a steel sheet and its process of making comprising the steps of heating steel to a temperature higher than the A1 and lower than the A3 point, cooling steel sheet to 700+/-30C, keeping the steel sheet at 700+/-30C for 10 to 30 seconds, and then cooling the steel at a cooling rate larger than 10C/sec to a temperature of 400+/-50C and cooling steel to room temperature whereas the originally presented claims 1 to 5 are directed to a sheet sheet which requires no process limitations.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 6 to 8 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1 to 5 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 3 to 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese patent 2000319759 or Japanese patent 2000309853.

5. Specific steel example 5 in Table 1 of JP'759 and JP'853 meets the claimed composition that exhibits excellent bending properties and high tensile strength properties within the present invention range of 600 to 1400MPA.

6. Moreover, the English abstract discloses steel alloy to have a composite microstructure of 5 to 15% retained austenite, and is within the claimed range of 5 to 30% and a balance of martensite, bainite and ferrite. Even though 70% ferrite as recited by the claim is not taught by prior art, such would be expected since compositional limitations are closely met, and in absence of proof to the contrary.

7. Prior art does not teach the presence of carbides and hence would meet the limitation of no more than 40 carbide grains per 2000 microns<sup>2</sup>.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent 2000319759 or Japanese patent 2000309853 as applied to claims 1 and 3 to 5 above, and further in view of Table 1.1 of ASM publication.

10. JP'759 and JP'853 steel meet the recited claim but fails to contain small amounts of Mo, Ni and/or Cu. These elements, however, are well known in the metallurgical art as conventional additives to further enhance properties (hardenability, workability etc.) in low-alloy steel sheets as evident by the ASM Table. Hence it would be an obvious modification and a matter of choice well within the skill of the artisan to add Mo, Ni and/or Cu to the steels of JP'759 and JP'853 to produce no more than the known and expected effect of such an addition.

11. Claims 1,4 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by European patent 1201780 cited by applicant in IDS dated July 5, 2005.

12. EP'780 -- No.6 specific steel F in Table 3 on page 15 meets the claimed composition and in table 4 on page 17, No. 14 steel F has a 72% ferrite and 10% retained austenite which meets the claimed microstructure. Also there is no disclosure with regard to carbides and hence would appear to meet the claimed limitation of no more than 40 carbide grains per 2000 microns<sup>2</sup>.

13. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over European patent 1201780 in view of Table 1.1 of ASM publication.

14. EP'780 meets the claimed composition for the reasons set forth in paragraph 12 except fails to include small amounts of Mo, Ni, Cu, Ca and/or REM. These elements, however, are well known in the metallurgical art as conventional additives to further

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enhance properties (hardenability, workability etc.) in low-alloy steel sheets as evident by the ASM Table. Hence it would be an obvious modification and a matter of choice and routine optimization well within the skill of the artisan to add Ca, REM, Mo, Ni and/or Cu to the steels of JP'759 and JP'853 to produce no more than the known and expected effect of such an addition.

15. The relevant references cited by the European Search Report have been considered by the examiner and the closest reference, EP1201780, has been applied to this office action.

### ***Conclusion***

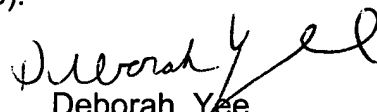
16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on Monday-Friday from 6:00 to 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Deborah Yee  
Primary Examiner  
Art Unit 1742

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